

Date: Wednesday, 12/20/2006 1:47:43 PM  
 User: Kim Johnston

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	BUBBLE WINDOW, RH
<b>Job Number</b> :	30059		
<b>Estimate Number</b> :	11394		
<b>P.O. Number</b> :	N/A	<b>Part Number</b> :	D32692
<b>This Issue</b> :	12/20/2006	<b>S.O. No.</b> :	N/A
<b>Prsht Rev.</b> :	NC	<b>Drawing Number</b> :	D3269 REVC/DSI9329 B
<b>First Issue</b> :	N/A	<b>Project Number</b> :	N/A
<b>Previous Run</b> :	27746	<b>Drawing Revision</b> :	C/B
	<b>Type</b> :	<b>Material</b> :	N/A
	PURCHASED PARTS	<b>Due Date</b> :	1/10/2007
<b>Written By</b> :			<b>Qty:</b> 5 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> :			
<b>Comment</b> :	Est. A 05.03.22 New issue KJ/JLM Est B 05.05.09 Added engraving EC Est Rev:06-07-03 As per Rev C JLM		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 2763

Manufacture D3269-2 as per Dwg D3269

Possible Supplier: Canus

Material release note is required

C Locol 12/21

⑤

2.0	D32692P	Bubble Window, RH R44
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)  
 Bubble Window, RH R44

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Recieve &amp; Inspect for Transit Damage

Ensure Material Release Note is attached

DIMENSIONAL CHECK

4.0	QC6	
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Comment: DIMENSIONAL CHECK

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1  
 Engrave p/n & batch# per Dwg D3269

ml 07/01/15 x5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: ☒ Date: 07/01

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 12/20/2006 1:47:44 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BUBBLE WINDOW, RH

Job Number: 30059

Part Number: D32692

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



*207-01-15 (S)*



Comment: INSPECT WORK TO CURRENT STEP

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:           

*PPR D-074 913-047*

*12/7/01/15 (S)*

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*12/7/01/15 (S)*

Job Completion



*12/7/01/15*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

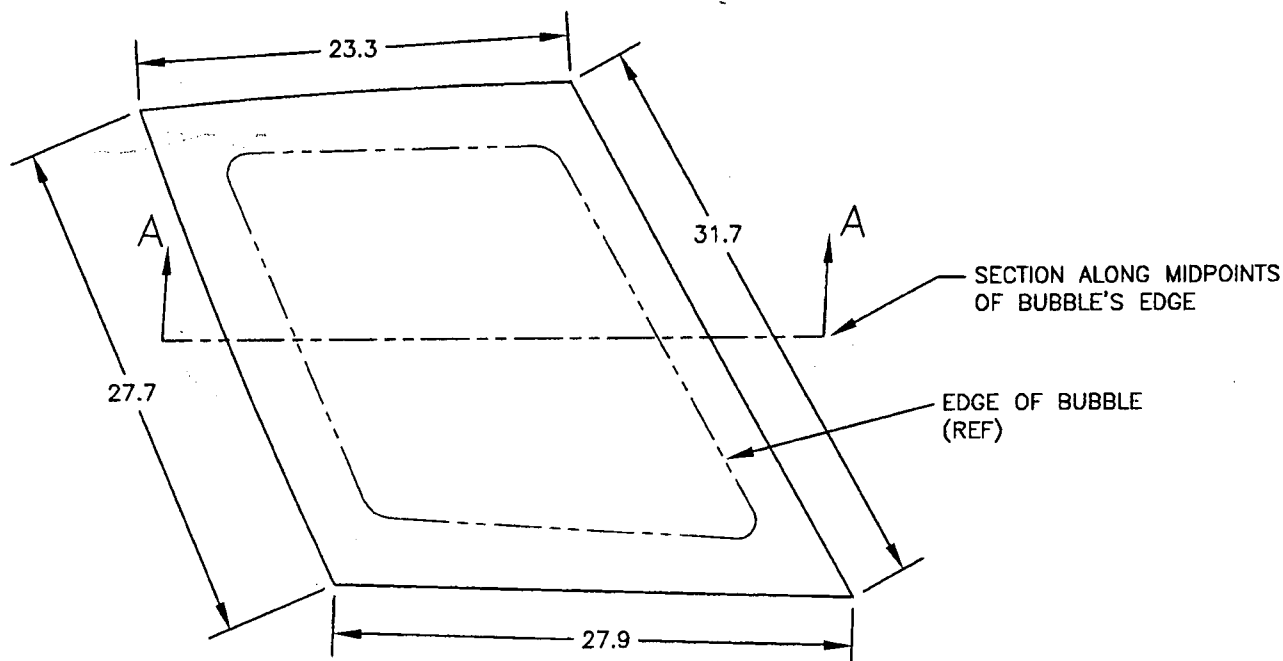
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN	CP	DRAWN BY	ip	DART AEROSPACE LTD
				HAWKESBURY, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO. D3269
				REV. C SHEET 1 OF 1
DATE	06.06.22	TITLE	BUBBLE WINDOW (R44)	SCALE 1:10
A	05.02.18	NEW ISSUE		
B	05.03.10	UPDATE MATERIAL SPEC.		
C	06.06.22	NO LONGER TRIMMED		

RELEASED  
de. de. 24



ENGRAVE P/N & B/N ON  
FLANGE WITHIN 0.25" OF BUBBLE.  
USE 0.125" LETTERS  
TO MAX DEPTH OF 0.005".

EDGE OF BUBBLE  
(REF)

3.8" MIN. MAT'L  
THICKNESS  
= 0.100"

6.2" MIN. MAT'L  
THICKNESS  
= 0.050"

10.0" ± 0.25"

SECTION A-A

SHOP COPY  
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ENGINEERING

**D3269-1 BUBBLE WINDOW, LH (SHOWN)/ D3269-2 BUBBLE WINDOW, RH (OPPOSITE)**

1) FORM PER D3269-1T1B (-1) OR D3269-2T1B (-2)

FORMING PROCESS: (a) DRAPE OVER D3269-1T1/-2T1 MOLD

(b) HEAT TO 250°F

(c) VACUUM FORM TO SPECIFIED HEIGHT

(d) LEAVE FOR AT LEAST 20 MINUTES COVERED WITH INSULATED  
BLANKETS TO COOL

2) MATERIAL: PLEXIGLAS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C, 0.188 TH.  
MINIMUM THICKNESS AFTER FORMING AS SHOWN ABOVE

3) ALL DIMENSIONS ARE IN INCHES

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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WORK ORDER  
NO. 30059

**DART**

DESIGN QP	DRAWN BY LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED QP	APPROVED [Signature]	DRAWING NO. DSI 9329	REV. B SHEET 1 OF 1
DATE 06.06.26		TITLE BUBBLE WINDOW INSTALL MOD.	SCALE NTS
A	06.04.25	NEW ISSUE	
B	06.06.26	CHG TO EFFECTIVE AFTER CHG 002	

## **DART SERVICE INSTRUCTION**

TO AMEND INSTALLATION INSTRUCTIONS IIN-D044-713 REV. A  
REF. CANADIAN STC: SH05-13 ISSUE 1  
REF. FAA STC: SR02088NY

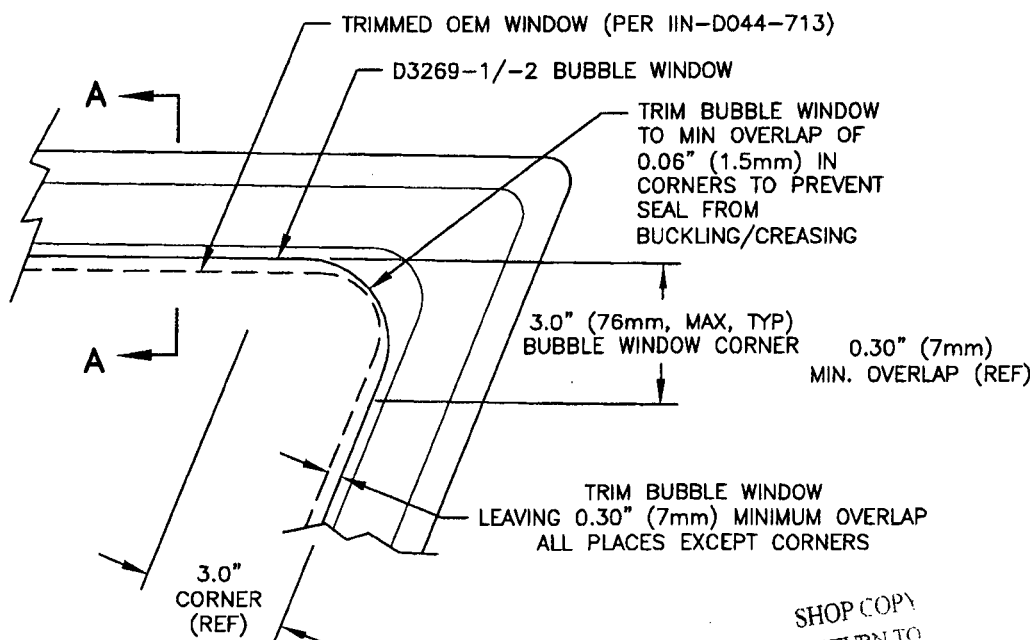
**PURPOSE:** For the D044-713-013/-014 kits supplied after CHG 002, the D3267-1/-2 bubble windows have been supplied untrimmed to allow for easier installation in the field. The installer must trim the windows in accordance with these instructions prior to installation.

### **PROCEDURE:**

- 1) Modify the R44 crew door per items 3.2.1 and 3.2.2 of Installation Instructions IIN-D044-713 Rev.A.
- 2) Fit and trim the D3269-1/-2 Bubble Window to match the cutout in the door as follows: The bubble window must be a minimum of 0.30" (7mm) larger than the cutout in the OEM window as shown in the figure below. However, in the corners of the window, it is acceptable to trim a 0.06" minimum overlap (1.5mm) to help prevent the D2126-0903 Seal from buckling/creasing in the corners. The edge of the bubble window must be deburred to a smooth finish.
- 3) Continue installing the bubble window per items 3.2.3 through 3.2.5 of the installation instructions.

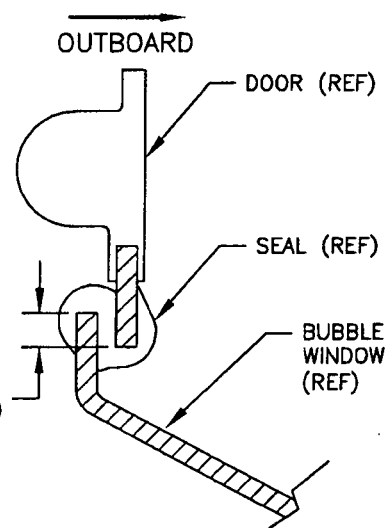
**FIGURE 1**

LOOKING AT INSIDE CORNER OF DOOR



**SECTION A-A**

(NOT TO SCALE)



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WITHOUT NOTICE  
WORK ORDER  
NO. 30059

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

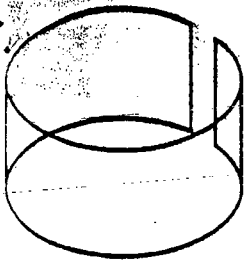
APPROVED

BY: [Signature]  
D. SHEPHERD (DE # 02)

DATE: 06.06.26  
CERT. NO.: SH05-13  
ISSUE NO.: 1

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CANUS Plastics Inc.  
100 Lisgar Street  
Ottawa, Ontario, Canada  
K2P 0E2  
Telephone (613) 232-2657  
Telex 053-3766

CERTIFICATE OF CONFORMANCE

Attention: Receiving Inspection

TO: Dart

Date: 11-01-07

P.O. 0002763

Packing Slip 131852

The undersigned hereby certifies that the materials supplied and the items shipped herewith under the above purchase order and on the packing slip are in conformance with all contractual applicable Government specifications and/or purchase order requirements and that physical and/or chemical reports of the materials supplied are on file and will be made available to the buyer and Government upon request.

QUANTITY	DESCRIPTION	SPECIFICATION NO.
<u>5 ✓</u>	<u># D3269 ✓</u>	<u>Plexiglas G.</u>
	<u>Acrylic windows</u>	<u>Cont Acrylic</u>
		<u>Sheet.</u>

CANUS PLASTICS INC.

BY [Signature]